UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,114	06/13/2001	Sundeep M. Bajikar	219.40068X00	3214

7590 09/22/2006

Kenyon & Kenyon
1500 K. Street, NW
Suite 700
Washington, DC 20005-1257

EXAMINER	
THOMAS, SHANE M	
ART UNIT	**PAPER NUMBER**
2186	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/879,114	BAJIKAR, SUNDEEP M.	
	Examiner	Art Unit	
	Shane M. Thomas	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-20* is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☒ Claim(s) *2-9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is responsive to the response filed 6/22/2006. Claims 1-20 remain pending. Applicants' arguments have been carefully considered, but they are not persuasive on at least one of the grounds of rejection. Accordingly, this action has been made FINAL.

Response to Arguments

Applicant's arguments, see pages 12-14 of the present response, with respect to the rejection of claims 1 under 35 U.S.C. 102(b) as being anticipated by Okuyama et al. in addition to the rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Okuyama et al. in view of Katahara et al. have been fully considered and are persuasive. Neither Okuyama nor Katahara specifically teach a position sensor as claimed by the Applicant - defined on page 11, lines 1-4 of the specification as originally filed. Therefore, the rejection has been withdrawn.

Applicant's arguments, see pages 10-11 of the present response, have been fully considered but they are not persuasive. Applicant argues on page 11 that the cited passage of Allen (U.S. Patent No. 6,115,200) - [5/45-54] - "merely describes shock sensing circuit 302 delivering a signal to circuit 304" and that the operation described a "post-shock movement sensing circuit." The Examiner acknowledges that the system of Allen uses a post-shock sensing circuit 304; however, this circuit is responsible for detecting *a sustained mechanical vibration* (e.g. the magnitude of oscillations of the transducer head, *sustained after a shock event*). As such, the Examiner is considering the shock detection circuit and the post-shock movement circuit to be a --vibration sensor--. As evidenced in figure 4, the shock sensing circuit 302

portion of the --vibration sensor-- detects an *initial* shock/vibration at step 402. The chipset (of which latch 306 is a portion of) limits access (by disabling writes) to the storage device to minimize damage therein at step 404. The Examiner admits that even though this step of disabling access occurs as soon as a shock event occurs, if the shock event results in the magnitude of oscillations of transducer head (step 410) for a *designated* sample cycle duration (step 408), then the --vibration signal-- has detected the *presence of sustained mechanical vibrations* (sustained over the designated cycle time) due to the original shock event. As such, instead of allowing access to the storage device (step 412), the --vibration sensor-- generates an inherent signal indicating that presence of sustained mechanical vibration (signal associated with excessive post-shock motion - [6/38-43]) to indicate to the chipset to maintain write prevention. In other words, once the detection in step 410 indicates that the magnitude of oscillations of the transducer head has not fallen below the threshold, a single must necessarily be generated to indicate to the post-shock sensing circuit 304 to maintain the write prevention and to once again start the detection method (steps 406-410) to determine if the mechanical vibrations persist at an unreasonable level for writing. Thus it can be seen that even though the original disable signal to prevent access occurred as a result of the initial shock detection in step 402, as a result of the determination that sustained mechanical vibrations are present, the inherent signal (vibration signal) that makes this determination is therefore utilized by the chipset (figure 3) to maintain write prevention and restart the measuring process of steps 406-410. Applicant's claim 1 does not limit the claimed system to having a signal that limits accesses to the disk immediately after a result of a shock detection, but merely claims a signal that detects sustained or sporadic mechanical vibrations - which Allen teaches with reference to figure 4.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Allen et al. (U.S. Patent No. 6,115,200).

As per claim 1, Allen (figure 2) teaches a storage device 222, a vibration sensor (combination of 302 and 307 - figure 3), and a chipset (combination of 306 and 310) having a storage controller 310 arranged to control accesses to the storage device 222 including limiting access to minimize damage to the storage device (figure 4) in response to the vibration signal indicating sustained vibrations - column 5, lines 45-54.

The vibration sensor (302,307) detects for sustained mechanical vibrations over a designated time period as shown in figure 4 and taught in column 5, lines 45-54, and generates a vibration signal to indicate the presence of a sustained mechanical vibration (i.e. keeps the enable write signal 412 inactive to prevent writing during vibrations).

Allowable Subject Matter

Claims 2-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-20 are allowable over the prior art of record.

As per claim 2, neither Okuyama, Katahara, or the other prior art reference of record specifically teach a position sensor as claimed by the Applicant - defined on page 11, lines 1-4 of the specification as originally filed.

As per claims 3 and 10, neither Okuyama, Katahara, nor the other prior art references of record specifically teach nor suggest, alone or in combination, utilizing a positional sensor (as defined in Applicant's specification - page 11, lines 1-4 as originally filed) to indicate a change in position while the chipset, which controls disk accesses, limits access to the disk to reduce damages to the disk in response to the position signal indicating the change in position of the mobile/computer system.

As per claim 19, The prior art of record does not teach or suggest receiving an indication from a vibration or position sensor which requests operation in a particular mode when *there is a presence of sustained or sporadic mechanical vibrations over a designated time duration or when there is a change in position of the mobile PC at a fixed or variable velocity or acceleration*

Claims 4-9 are objected to as being dependent upon objected base claim 3.

Claims 11-18 and 20 are allowable over the prior art of record as being dependent upon an allowable base claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane M. Thomas whose telephone number is (571) 272-4188. The examiner can normally be reached on M-F 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shane M. Thomas

TUAN V. THAI
PRIMARY EXAMINER